



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,924	04/30/2007	M. Yavuz Dedegil	2003P01405WOUS	9207

46726 7590 01/27/2010
BSH HOME APPLIANCES CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
100 BOSCH BOULEVARD
NEW BERN, NC 28562

EXAMINER

BLAN, NICOLE R

ART UNIT	PAPER NUMBER
----------	--------------

1792

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

01/27/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

NBN-IntelProp@bshg.com

Office Action Summary	Application No. 10/582,924	Applicant(s) DEDEGIL ET AL.	
	Examiner NICOLE BLAN	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-22 and 24-30 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>06132006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 2, paragraph 6, the claims listed in this paragraph no longer exist due to an amendment to the claims. On page 3, paragraph 13, please correct the punctuation at the end of the paragraph. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 22 recites the limitation "the cleaned dishwashing liquid" in line 2. There is insufficient antecedent basis for this limitation in the claim.

4. Claim 27 recites the limitation "the cleaned dishwashing liquid" in line 16. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 24 states that "the outlet preferable has a variable-height overflow." Claim 24 ultimately depends on claim 22 that teaches a first outlet and a second outlet. What outlet is being referred to in claim 24? For the purpose of examination, as long as either the first or second outlet has a variable-height overflow, the claimed limitations are met.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. **Claims 16-22, 24, 26-28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (U.S. PGPub 2002/0074026, hereinafter ‘026) in view of Kemper (U.S. Patent 6,413,366, hereinafter ‘366).**

Claim 16: ‘026 teaches a dishwashing machine [title; abstract] comprising a dishwashing container [(d), Fig. 1; page 1, paragraph 6] that holds items to be subjected to a dishwashing liquid [Fig. 1, page 1, paragraph 6] and a filter system [(62 & 64), Fig. 1; page 1, paragraph 8] in communication with the dishwashing container so that some of the dishwashing liquid passes through the filter system wherein dishwashing residue contained in the dishwashing residue contained in the dishwashing liquid is at least partially retained by the filter [page 1, paragraph 11]. ‘026 does not teach that the filter system includes a foam volume or that at least some of the dishwashing liquid can be discharged to the foam volume so that dishwashing residue contained in the dishwashing

liquid is retained by the foam volume. However, '366 teaches a filter for removing contaminants from a solution using foam such that the liquid solution is passed through the foam in order to remove contaminants from the liquid [abstract; col. 2, line 30—col. 3, line 7]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the filter taught by '366 in place of the filter of '026 with a reasonable expectation of success because '366 teaches that the filter removes contaminants from an incoming liquid by use of foam in order to retain the contaminants in the foam. Therefore, modified '026 teaches that the dishwashing liquid flows into a filter system and through a foam volume in order to retain contaminants from the dishwashing liquid in the foam.

Claim 17: '026 and '366 teach the limitations of claim 16 above. '366 teaches mixing an incoming liquid with an incoming gas to produce the foam [reads on “foam developer”; Fig. 1; col. 2, lines 30-41]. Modified '026 teaches that the liquid introduced to the filter is dishwashing liquid, so the mixing of dishwashing liquid with a gas produces foam. Regarding the recitation “mix...at least one of the dishwashing liquid and a non-dishwashing liquid with air”, this recitation is a statement of intended use which does not patentably distinguish over modified '026 since modified '026 meets all the structural elements of the claim(s) and is capable of mixing the dishwashing liquid with air if so desired. See MPEP 2114.

Claim 18: '026 and '366 teach the limitations of claim 16 above. '366 also teaches a filter container for retaining the foam [see Fig. 1].

Claim 19: '026 and '366 teach the limitations of claim 18 above. '366 also teaches that the filter container includes a wall on the filter container [see wall to the left where the fluids are introduced to the container; Fig. 1], the wall has an opening through which a gas can be introduced into the filter container [Fig. 1; col. 2, lines 30-36]. Regarding the recitation "at least one of air", this recitation is a statement of intended use which does not patentably distinguish over modified '026 since modified '026 meets all the structural elements of the claim(s) and is capable of introducing air as the particular gas if so desired. See MPEP 2114. '366 discloses the claimed invention except for the wall having openings over at least a portion thereof. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an additional opening in the wall to introduce the gas, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Claims 20 and 21: '026 and '366 teach the limitations of claim 18 above. '366 also teaches that the filter container includes a wall on the filter container [see wall to the left where the fluids are introduced to the container; Fig. 1], the wall has an opening through which a liquid can be introduced into the filter container and liquid is introduced through a nozzle with a plurality of openings [reads on "distributor nozzle...liquid is introduced into the filter container in fine jets"] [Fig. 1; col. 2, lines 30-44 and 59-62]. Modified '026 teaches that the liquid introduced to the filter is dishwashing liquid.

Claim 22: '026 and '366 teach the limitations of claim 18 above. '366 teaches that the filter has a first outlet [(S'), Fig. 1] and a second outlet [(R), Fig. 1]. Regarding the recitation "a first outlet through which the cleaned dishwashing liquid is discharged...a second outlet through which the foam volume is discharged", this recitation is a statement of intended use which does not patentably distinguish over modified '026 since modified '026 meets all the structural elements of the claim(s) and is capable of introducing air as the particular gas if so desired. See MPEP 2114.

Claim 24: '026 and '366 teach the limitations of claim 22 above. '366 teaches that the outlet [(S') located within (7) in Fig. 1] has a variable-height overflow. Based upon the rejection under 35 U.S.C. 112, second paragraph above, the limitation is met.

Claim 26: '026 and '366 teach the limitations of claim 18 above. '026 also teaches that the filter container is disposed between the dishwashing container [(d), Fig. 1] and an outer wall of the dishwashing machine [the entire casing in Fig. 1].

Claim 27: '026 teaches a dishwashing machine [title; abstract] comprising a dishwashing container [(d), Figs. 1&3; page 1, paragraph 6] that holds items to be subjected to a dishwashing liquid [Figs. 1 & 3, page 1, paragraph 6] and a filter system [(80, 81, 82), Fig. 3; pages 3-4 paragraphs 55-65] in communication with the dishwashing container so that some of the dishwashing liquid passes through the filter system [pages 3-4 paragraphs 55-65] and that it is known to remove the contaminants collected via the filter from the dishwasher [Figs. 10A&B; pages 3-4 paragraphs 55-65].

'026 does not teach that the filter system includes a foam volume or that at least some of the dishwashing liquid can be discharged to the foam volume so that dishwashing residue contained in the dishwashing liquid is retained by the foam volume. However, '366 teaches a filter for removing contaminants from a solution using foam such that the liquid solution is passed through the foam in order to remove contaminants from the liquid and that the liquid and foam both exit the filter [abstract; col. 2, line 30 - col. 3, line 7]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the filter taught by '366 in place of the filter of '026 with a reasonable expectation of success because '366 teaches that the filter removes contaminants from an incoming liquid by use of foam in order to retain the contaminants in the foam. Therefore, modified '026 teaches that dishwashing liquid flows into the filter system where dishwashing residue is retained by the foam (see teaching of '366), and the newly filtered dishwashing liquid is cycled back to the dishwasher via the circulation pump (see circulation pump (70) of '026), and the foam containing the residue is discharged from the washer using the drain pump (see drain (70) of '026).

Claim 28: '026 and '366 teach the limitations of claim 27 above. '366 teaches mixing an incoming liquid with an incoming gas to produce the foam [reads on “foam developer”; Fig. 1; col. 2, lines 30-41]. '366 also implicitly teaches that the liquid is mixed with air because '366 teaches that air bubbles are formed so that contaminants will accumulate in the air bubbles [col. 2, lines 44-54. Modified '026 teaches that the liquid introduced to the filter is dishwashing liquid, so the mixing of dishwashing liquid with air produces foam.

Claim 30: '026 and '366 teach the limitations of claim 28 above. '366 also teaches that a liquid can be introduced through a nozzle with a plurality of openings [reads on “distributor nozzle...liquid is introduced into the filter container in fine jets”] [Fig. 1; col. 2, lines 30-44 and 59-62]. Modified '026 teaches that the liquid introduced to the filter is dishwashing liquid.

9. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (U.S. PGPub 2002/0074026, hereinafter '026) in view of Kemper (U.S. Patent 6,413,366, hereinafter '366), and further in view of Damron et al. (U.S. Patent 6,402,855, hereinafter '855).

Claim 25: '026 and '366 teach the limitations of claim 17 above, but they do not teach that the dishwashing liquid is supplied to the foam developer by a circulating pump. However, '855 illustrates that it is known to withdraw solution from a container for washing using a pump [reads on “circulating pump” because the solution is circulated from (112) in Fig. 6 back into the container at (132/158)] and then feeding the solution through a filter [(108), Fig. 6] before it is returned to the chamber [see Fig. 6; cols. 9 and 10]. Therefore, it would have been obvious to an ordinary artisan to supply the dishwashing liquid of modified '026 to the foam developer via circulating pump as taught by '855 because '855 illustrates it is known to withdraw a solution from a container using a pump, feed it through a filter before the solution is circulated back into the container.

10. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (U.S. PGPub 2002/0074026, hereinafter '026) in view of Kemper (U.S. Patent 6,413,366, hereinafter '366), and further in view of Valenzuela et al. (U.S. Patent 5,234,112, hereinafter '112).

Claim 29: '026 and '366 teach the limitations of claim 27 above. '026 and '366 do not teach externally generating the foam and then introducing the foam into the filter container. However, '112 teaches that it is known to use a foam reactor [reads on “filter”; (1), Fig. 2] with an external foam generator [(9), Fig. 2] so that the solution entering the reactor and the foam introduced into the reactor are mixed within the reactor so that the particles to be removed have time to adhere to the foam [col. 1, lines 36-56 and 65-67; col. 2, lines 28-48]. Therefore, it would have been obvious to an ordinary artisan to use an external foam generator as illustrated by '112 in the modified method of '026 with a reasonable expectation of success because '112 teaches that by externally generating the foam and introducing it to the reactor there is time for the particle being removed to adhere to the foam.

Allowable Subject Matter

11. Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: Kim teaches a conventional dishwasher that recycles the filtered liquid or drains

the filtered liquid, but it does not teach draining the filtered particles contained within the foam or using a three-way valve to selectively determine if the liquid is recycled or the particles are drained as is required by the claim limitations. Kemper teaches that the foam containing the particles and the cleaned liquid exit the filter from two different locations without using a three-way valve to direct the discharge of either the cleaned liquid or the foam containing the particles. Kamikawa teaches that it is conventionally known to use a three-way valve to selectively determine if the liquid is circulated or drained. However, the combination of Kim and Kemper do not lead one of ordinary skill in the art to direct both the foam containing particles and the cleaned liquid through the same outlet such that a valve can determine that the cleaned liquid is recycled and the foam containing particles is discharged as waste. The search conducted by the examiner has not indicated more relevant documents. Thus, the art of record does not fairly teach or suggest using a three-way valve to selectively decide if the cleaned liquid is recycled or the foam containing particles is discharged as waste.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE BLAN whose telephone number is (571)270-1838. The examiner can normally be reached on Monday - Thursday 8-5 and alternating Fridays 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cleveland can be reached on 571-272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicole Blan/
Examiner, Art Unit 1792

/Michael Cleveland/
Supervisory Patent Examiner, Art Unit 1792